REMARKS

Claims 4-14 are pending in the application. In the Final Office Action mailed April 9, 2002, claims 4, 5, 10, and 11 stand rejected under 35 U.S.C. 102(b) over Eritja and claims 7-9 stand rejected under 35 U.S.C. 103(a); and claims 6 and 12-14 were objected to as depending from a rejected claim. In the Advisory Action mailed October 31, 2002, the Examiner indicated that Applicant's amendment had not been entered because the amendment would require a new search and consideration under 102/103.

In a December 2, 2002 telephone conference between Examiner Souaya and the undersigned, the Examiner indicated that she would enter and consider an amendment canceling claims 4, 5, and 7-11, and rewriting claims 6 and 12-14 in independent form.

In view of the amendments above and the arguments below, Applicant respectfully requests reconsideration on the merits of the application.

Objection to the claims

Claims 6 and 12-14 were objected to as depending from a rejected claim. Claims 6, 12, and 14 have been rewritten in independent form. Claim 13 has been amended to depend from claim 12. Applicant respectfully requests that the objection be withdrawn and the claims be allowed.

Rejections under 35 U.S.C. 102(b)

A. Rejection of claims 4, 5, 10, and 11 as being anticipated by Eritja

Claims 4, 5, 10, and 11 stand rejected under 35 U.S.C. 102(b) as being anticipated by Eritja (NAR 14:8135-8153, 1986). Eritja is cited as teaching a method of making an oligonucleotide using a template containing a non-standard nucleotide (xanthine) by contacting the template with a mixture of nucleotide triphosphates and forming an oligonucleotide complementary to a portion of the template containing the xanthine by enzymatic polymerization, and incorporation of 9-(β-D-2'-deoxyribofuranosyl)-2-aminopurine triphosphate (dAPTP) opposite xanthine.

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Applicant has cancelled claims 4, 5, 10, and 11 without prejudice, rendering this rejection moot. Applicant respectfully requests that the rejection of the claims under 102(b) as being anticipated by Eritja be withdrawn.

Rejections under 35 U.S.C. 103(a)

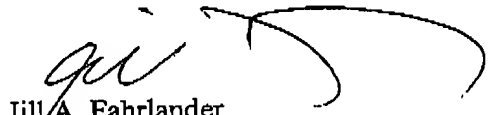
Claims 7-9, which depend from claim 4, stand rejected under 35 U.S.C. 103(a) as being unpatentable over Eritja *et al.* The Examiner asserts that incorporation of labeled nucleotides into oligonucleotides by primer extension is well known.

Applicant has cancelled claims 7-9 without prejudice, rendering this rejection moot. Applicant respectfully requests that the rejection of the claims under 103(a) be withdrawn.

As the application is now in condition for allowance, Applicant requests allowance of the claims. Should the Examiner feel that any other point requires consideration or that the form of the claims can be improved, the Examiner is invited to contact the undersigned at the number listed below.

No fee is believed due in connection with this submission. Please charge any fee due or credit any overpayment of fees to Deposit Account No. 50-0842.

Respectfully submitted,



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MARKED UP VERSION OF CLAIMS SHOWING CLEARLY THE AMENDMENTS

6. A [The] method [according to claim 4] of making an oligonucleotide, the method comprising:

providing a template oligonucleotide comprising a sequence of nucleotides, the template comprising at least one non-standard nucleotide at a preselected site in the sequence;

contacting the template with a mixture of nucleotide triphosphates, the mixture comprising nucleotide triphosphates that are complementary to the nucleotides of the template, wherein the nucleotide triphosphate complementary to the non-standard nucleotide at the preselected site comprises a derivatized nucleotide; and

forming an oligonucleotide complementary to a portion of the template by enzymatic polymerization of the nucleotide triphosphates in a sequence complementary to the portion of the template, wherein the non-standard nucleotide at the preselected site is iso-G or iso-C.

12. A [The] method [according to claim 4] of making an oligonucleotide, the method comprising:

providing a template oligonucleotide comprising a sequence of nucleotides, the template comprising at least one non-standard nucleotide at a preselected site in the sequence;

contacting the template with a mixture of nucleotide triphosphates, the mixture comprising nucleotide triphosphates that are complementary to the nucleotides of the template, wherein the nucleotide triphosphate complementary to the non-standard nucleotide at the preselected site comprises a derivatized nucleotide; and

forming an oligonucleotide complementary to a portion of the template by enzymatic polymerization of the nucleotide triphosphates in a sequence complementary to the portion of the template, wherein the enzymatic polymerization

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[polymerase enzyme is] comprises a DNA polymerase selected from the group consisting of AMV reverse transcriptase, T4 DNA polymerase, and Klenow fragment of DNA polymerase I.

13. The method of claim [4] 12, wherein the DNA polymerase comprises Klenow fragment of DNA polymerase I.

14. A [The] method [according to claim 4] of making an oligonucleotide, the method comprising:

providing a template oligonucleotide comprising a sequence of nucleotides, the template comprising at least one non-standard nucleotide at a preselected site in the sequence;

contacting the template with a mixture of nucleotide triphosphates, the mixture comprising nucleotide triphosphates that are complementary to the nucleotides of the template, wherein the nucleotide triphosphate complementary to the non-standard nucleotide at the preselected site comprises a derivatized nucleotide comprising a radiolabel; and

forming an oligonucleotide complementary to a portion of the template by enzymatic polymerization of the nucleotide triphosphates in a sequence complementary to the portion of the template, wherein the enzymatic polymerization [polylmerase enzyme is] comprises T7 RNA polymerase.

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